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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,059	11/16/2001	Tiangong Liu	79569-2/jlo	7859

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EXAMINER

CHASE, SHELLY A

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,059

Applicant(s)

LIU ET AL.

Examiner

Shelly A Chase

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9, 10 and 18 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 11 and 12 is/are rejected.
- 7) ☒ Claim(s) 3-8 and 13-17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) #
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Claims 1 to 18 are presented for examination.

Response to Amendment

2. The rejection of claims 9 to 10 and 18 as being obvious over Jae lee in view of Kikuchi is **withdrawn**.
3. Applicant's arguments, see remarks page 8, par. 2, filed 8-30-2004, with respect to the rejection(s) of claim(s) 1 to 2 and 11 to 12 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.

Claim Rejections - 35 USC § 112

4. Claims 1 to 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, recites the limitation "with the at least one test pattern" recited on line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Takai et al. (USP 5548399).

Claims 1 and 11:

Takai teaches a method and an apparatus for testing an optical receiver measuring the bit error rate, the apparatus comprising: optical multiplexors [130-138] receiving optical signals generated by an optical signal generator [100] and signals received from an optical switching unit [110] (see fig. 5 and col. 4, lines 46 to 50). Takai also teaches that the signals outputted from the multiplexors are supplied to a tested receiver [7] ("DUT"), (see col. 4, lines 50 to 55).

Takai further teaches a DC light signal is converted to an optical signal and the converted optical signal is provided to the switching device (see col. 4, lines 50 to 60). Takai teaches that the converted optical signals are combined ("modulated") with optical signals generated (see col. 4, lines 40 to 50).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims **2** and **12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Takai et al. in view of Mikkelsen et al.

As per claims **2** and **12**, Takai does not specifically teach the testing apparatus and method includes an optical demultiplexer, demultiplexing the received signal; however, Mikkelsen in an analogous art teaches an optical wavelength converter wherein a demultiplexer receives the signals from a DFB laser and demultiplexes the received optical signals (see pg. 133 par. 3).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the testing apparatus of Takai to include demultiplexing the signal outputted from the laser as taught by Mikkelsen since Mikkelsen, teaches that better performance is achieved by demultiplexing the received signals. This modification would have been obvious because a person of ordinary skill in the art would have been motivated to employ a method capable of achieving better bit error rate performance by utilizing a demultiplexer as taught by Mikkelsen (see pg. 134 par. 3).

Allowable Subject Matter

9. Claims 3 to 8 and 13 to 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 9 to 10 and 18 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter: the instant invention is directed to a bit error rate tester comprising a first optical converter for converting a first optical signal at a first data rate and a first electrical signal at the same data rate and a second optical converter for converting a second optical signal at a second data rate. The prior art made of record teaches testing an optical signal utilizing multiple converters for converting optical signals and electrical signals; however, the prior art made of record taken alone or in combination fails to teach or fairly suggest or render obvious the novel features or the instant invention of converting a first signal at a first data rate and converting a second signal at a second data rate as claimed in independent claims 9 and 18. Claim 10 is directly dependent on claim 9 and is allowed over the prior art made of record.

Response to Arguments

12. In response to the arguments concerning the previously rejected claims over Mikkelsen in view of Jae Lee, the following comments are made:

The remarks on page 8 par. 3, states that Mikkelsen does not disclose a multiplexer for multiplexing a plurality of input signals and supplying a plurality of test pattern data signals for injection into a device under test. While the examiner agrees with applicant's representative that Mikkelsen does not teach the stated limitation of supplying a test pattern data signal to a device under test, the examiner would like to point out that since a multiplexer is a communication device, which allows two or more signals to be communicated over a single channel then the multiplexer of Mikkelsen is capable of multiplexing a plurality of input signals.

Conclusion

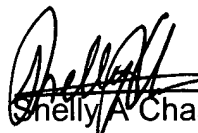
13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shelly A Chase whose telephone number is 703-308-7246. The examiner can normally be reached on Mon-Thur from 8:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 703-305-9595. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Shelly A Chase